JAY

ROBUST

ERGONOMIC

SECURE

Gama
TRANSMITTER

Gama transmitter adapts to the application to make the process more efficient. This easy-to-use handheld module gives incomparable freedom of movement, and higher productivity while providing best high motion accuracy operators' safety. With Gama transmitter, experience today's cutting-edge technology.

MAIN FEATURES

> Configurable, smart bi-directional radio link exchanges information while adapting to the radio environment.

> User-friendly screen for look-up, selection, validation, configuration…

> Ergonomic casing and buttons, even when wearing thick gloves.

> Function buttons designed to SIL 2 per EN 61508 and PL d per EN ISO 13849.

> Quick and easy setup for application configuration thanks to **iDialog** software (labels, feedback, alarms, mapping actuators/outputs, interlocks, network features, access by PIN codes).

> Easy to maintain thanks to its diagnosis aid system (on screen message, iDialog analysis software).

> 2 charging modes on Gama:
  - Rugged industrial charger for operator module,
  - Rugged industrial charger for battery.

FULLY COMPLIANT WITH SAFETY AND SECURITY STANDARDS:

Machinery directive 2006/42/EC:
Emergency stop
> SIL 3 per EN 61508
> Performance level PL e
   per EN ISO 13849-1 and -2
EC type certificate issued by TÜV
NORD

TÜV NORD
TÜV NORD CERT GmbH
Type Tested

Radio and telecommunication terminal equipment
(low voltage, electromagnetic compatibility, radio spectrum)
FCC part 15
ARCEP certificate
Radio Equipment Directive (RED)

MULTIMODES
OPTIONS

OPTIONAL STARTUP
VALIDATION BY IR

SEALED USB PORT
FOR DIAGNOSIS,
CONFIGURATION

BIDIRECTIONAL
RADIO LINK

TOUGH BACKLIT SCREEN
WITH
ANTI-REFLECTION,
SHOCK-PROOF,
ANTI-SCRATCHING
FEATURES

2 ATTACHMENT POINTS
FOR
SHOULDER STRAPS

INTEGRATED REINFORCED
ABS AND PROTECTION
FOAM

Radio
Testing
Power
Channel setting
Previous

Setup
Identifying
Language
Display
Function
Button

SEALS

LARGE-SIZED
EASY-TOUCH CONTROL
BUTTONS:
FOR EASY USE
WITH GLOVES
TO PREVENT
MUSCULO-SKELETAL
DISORDER (MSD)

FUNCTION BUTTON SIL
2 - PL d

CASING SHAPED
TO PREVENT
UNINTENTIONAL ACTIONS

OPTIONAL
ANTI-ZAPPING
FUNCTION

NAVIGATION
BUTTONS

LABELS FOR IDENTIFYING
FUNCTIONS

BREATHABLE
MEMBRANE
TO PREVENT
CONDENSATION

OK

6+2 MODEL

ON / VALIDATION BUTTON

OK

HIGH-CAPACITY
PLUG-IN BATTERY

EMERGENCY STOP
PALMSWITCH
SIL 3 - PL e

10+2 MODEL

OPTIONAL VIBRATOR
(ALARM)

DESCRIPTION

TECHNICAL CHARACTERISTICS

ADDITIONAL OPTIONS

The transmitter comes in two versions:

> **«6+2»**[a] **transmitter** with 6 function buttons[b]:
- 6 single-action pushbuttons
- OR 6 double-action pushbuttons
- OR 4 double-action pushbuttons
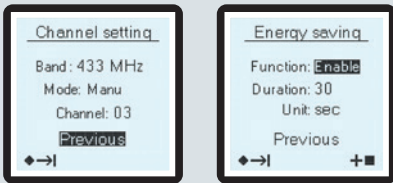 + 2 single-action pushbuttons
  (under the display)

> **«10 +2»**[a] **transmitter** with 10 function buttons[b]:
- 10 single-action pushbuttons
- 10 double-action pushbuttons
- OR 6 double-action pushbuttons
  + 4 single-action pushbuttons
  (under the display)
- OR 8 double-action pushbuttons
  + 2 single-action pushbuttons
  (under the display)

[a] Each version has 2 navigation pushbuttons.

[b] The single-action pushbuttons can be configured as selectors for 2, 3 or «n» positions with status indication on the screen.

The screen on the transmitter allows configurating easily and choosing items such as:

```
Channel setting
Band : 433 MHz
Mode: Manu
Channel: 03
Previous
◆→|
```

```
Energy saving
Function: Enable
Duration: 30
Unit: sec
Previous
◆→|          +■
```

> Screen language

> Receiver which you want to use

> Radio transmit frequency and power

> Duration of the « standby » time delay
(automatically stops transmitter and associated receiver if not used for a defined period of time)

> Operating modes of the equipment (32 max.)

It also displays:
- Battery charge level
- Radio communication
- Equipment labels and controlled functions (max 96 different labels for selectors)
- Equipment feedback (16 feedbacks max with 10 labels / feedback - 48 max labels in total)
- Alarms (8 for application use + 8 for system)

Compatibility:
These transmitters work with **Elio, Alto, Timo Nemo** receivers to be defined according the application.

MECHANICAL CHARACTERISTICS AND ENVIRONMENTAL WITHSTAND CAPACITY

Housing material	shock-resistant reinforced ABS
Water tightness	IP65
Weight (with battery)	6 buttons: 768 g
	10 buttons: 893 g
Dimensions	6 buttons: 290 x 93 x 64 mm
	10 buttons: 360 x 93 x 64 mm
Storage	on charger support
Carried	by 2-point shoulder strap

ENVIRONMENTAL WITHSTAND CAPACITY

Operating temperature range	-20 °C to +50 °C
Storage temperature without battery	-20 °C to +70 °C
Battery storage temperature	-20 °C to +50 °C

ELECTRICAL AND RADIO CHARACTERISTICS

Power supply	Li-ion battery
Autonomy (25 °C) with radio link activated 100 % time	10 hours
Frequency selection	64 frequencies for 433-434 MHz
Manual / automatic	12 frequencies for 869 MHz
	64 frequencies for 911-918 MHz
	64 frequencies for 2.4 GHz
Emission power	< 10 mW (license free)
Range limitation	10 selectable levels of power
Modulation	FM or LoRa with 2.4 GHz
Average range [1]	100 m in industrial environment [1]
	300 m in open space [1]
	80 m-300 m band 2.4 GHz in industrial environment [1]
	800 m-2 Km band 2.4 GHz in open space [1]
Charging time (endurance > 80 %)	3 hr (20 mn of charge provides 1hr autonomy)
Charging temperature range	0 °C to +40 °C

FUNCTIONAL CHARACTERISTICS

Display	Backlit LCD, 128 x 128 pixels
	42 mm (W) x 40 mm (H)
USB interface for configuration and diagnosis	mini-B 5-contact USB connector Easy access in a compartment on the backside of transmitter
Operating indications	Displayed on screen (radio link status, battery status, status of buttons, information feedbacks…)
Function buttons	6 or 10 pushbuttons (available as single or double-action buttons and configurable as selectors with n positions) Ø 14 mm - travel 7 mm Endurance : 1 million cycles for 1st level pushbutton action 500 000 cycles for 2nd level pushbutton action
Navigation and startup buttons	2 pushbuttons to configure the product (above the emergency stop palmswitch) On / Validation button (for startup and validation of menus on screen) Endurance: 500 000 cycles
Emergency stop	2 positions with rotary unlock system
Standby function	User-defined time delay (from 1 s to infinity)

[1] Range varies according to environment conditions around transmitter and reception antenna (steel works, metal walls, etc. …).

STARTUP VALIDATION BY IR

Startup of the remote-controlled equipment can be secured by adding an IR startup feature.

- To start the equipment, the operator must point the module in the direction of the PWT20 IR module(s) mounted on the equipment to control. The "transmitter / Equipment controlled" match-up takes place with no possibility of error.

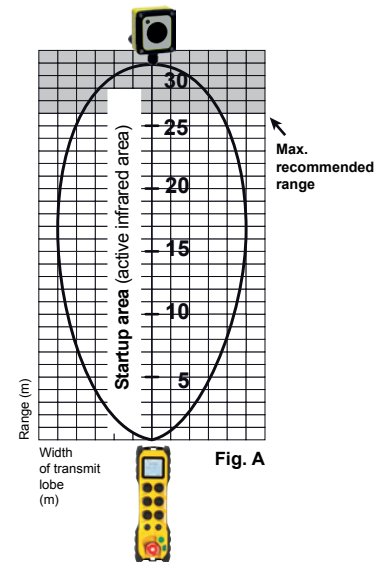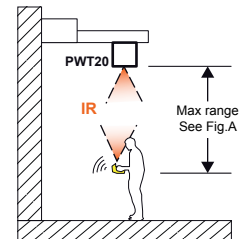- The IR startup feature has a range of 26 m (see fig. A).
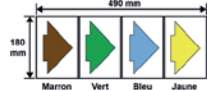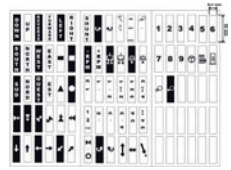
Fig. A

Reference	Description	Picture
UWE102	Removable 2-points shoulder strap	
PWC	Charger for PWB plug-in battery Dimensions : 170 x 65 x 36 mm Power supply 12/24 Vdc, 7 W	
PWCG060	Standard charger for Beta2 transmitter Dimensions: 355 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
PWCG061	Docking charger Beta2 with 2 Relays + 1 logical input + Buzzer Dimensions: 355 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
PWCG100	Standard charger for Beta6 transmitter Dimensions: 428 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
PWCG101	Docking charger Beta6 with 2 Relays + 1 logical input + Buzzer Dimensions :428 x 94 x 96 mm Power supply 12/24 Vdc, 7 W	
PWB	Supplementary plug-in battery 3.7 V 2200 mA lithium Ion (for Beta 6) Dimensions : 57 x 56 x 16 mm Voltage: 3.7 V Capacity: 1900 mAh	
UBCU	110-240 Vac / 12 Vdc Adapter with European, UK and US plugs For charger PWC, PWCB02x, PWCB06x	
PWA4	Cigarette lighter socket 12-24 Vdc. For charger PWC, PWCB02x, PWCB06x	
UWE002	4 self-adhesive directional colored arrows (4 x 122 x 180 mm)	
UWE202	6 label kit arrows color	
UWE205	48 blank label kit	
UWE207	Kit 90 labels buttons black & white	